458

Socioeconomic status does not affect FEV1 in children with cystic fibrosis

T. Famon[1], K. Giles[2], G. Connett[1], J. Legg[1]
[1]*Paediatric Regional CF Centre, Southampton University Hospitals NHS Trust, UK,* [2]*South&West Cystic Fibrosis Database, Bath, UK*

Health inequalities according to socioeconomic status (SES) are well described.[1] A US study has reported a significant reduction in percentage predicted FEV1 in cystic fibrosis (CF) patients receiving Medicaid compared to those who don't.[2] In the UK, decreased survival has been found in CF patients of lower social class.[3]
The South&West CF database holds information on 857 CF patients from the south and west of England since 1995. Using the English Index of Multiple Deprivation (IMD 2004), we analyzed data from the database by correlational analysis to look for an association between percentage predicted FEV1 and SES in 7 & 10 year olds. We also compared FEV1 of patients in the upper and lower quartiles of IMD score. When corrected for sex and pancreatic status, we found no significant difference in FEV1 at either age according to the IMD 2004 score, consistent with findings in older patients by investigators from Bristol, UK.[4]
We postulate that equality of access to healthcare provided by the National Health Service and Social Services support, contributes to the comparability of lung function amongst children with CF in our region, irrespective of SES. Further nationwide analysis of FEV1 across all age groups is indicated to confirm these findings and to examine at what stage (if any) differences according to SES become significant.

1. Adler NE et al Socioeconomic inequalities in health. *JAMA* 1993;269:3140-5
2. Schechter MS et al The association of socioeconomic status with outcomes in cystic fibrosis patients in the United States. *Am J Respir Crit Care Med* 2001;163:1331-7
3. Britton J Effects of social class, sex and region of residence on age at death from cystic fibrosis. *BMJ* 1989;298:483-7
4. Jarad N *(personal communication)*

459

Projection of lung transplantation for cystic fibrosis needs in France from 2001 to 2010

G. Bellis[1], E. Le Roux[1,2], Y. Chalem[3], A. Parant[1], S. Ravilly[2]
[1]*Institut National des Etudes Démographiques, Paris, France,* [2]*Vaincre la Mucoviscidose, Paris, France,* [3]*Etablissement français des Greffes, Paris, France*

Aims: Lung transplantation has become an option for patients with cystic fibrosis and end stage lung disease since 1988 in France. Using data base of the French Registry (ONM) projection for transplantable patients have been calculated in order to estimate the needs –in the future- for lung transplantation in CF, and furthermore to contribute to a broader consideration on the necessary adequacy between patients needs and public health offers.
Methods: We used FEV1 (distributed in 10 classes), to indicate respiratory function. FEV1 below 30% of theorical value was considered to be the criteria for registration on the waiting list. Patients in whom FEV1 was could observe three situations: entry, exit through transplantation or death, continuous presence. Regarding these situations three probabilities have been calculated: mean entry probability depending on the FEV1, mean exit probability depending on the FEV1, mean annual probability to change class. These probabilities have been applied to the population known the 31st December 2001, from 2002 to 2010.
Results: in 2001, 217 CF patients had FEV below 30%. According to our selection criteria, we can consider that this represents the number of patients eligible for lung transplantation. After 2001, the projection of the transplantable population would be as follows: 249 in 2006 and 313 in 2010.
Conclusions: If treatment options and time on the waiting list are unchanged, lung transplantation for cystic fibrosis needs are significantly going to increase in the short term in France.

460

Clinical management of cystic fibrosis (CF) between 1996 and 2003 in a French adult CF care center

S. Touzet[1], S. Bourdy[1], S. François[2], G. Bellon[3], R. Nove-Josserand[2], C. Colin[1], I. Durieu[2]
[1]*DIM, Hospices Civils de Lyon, France,* [2]*Service de Médecine Interne, CHLS, Lyon, France,* [3]*Service de Pédiatrie-Pneumologie, Hôpital Debrousse, Lyon, France*

Objective: To describe the evolution of clinical practice patterns in the adult CF care center of Lyon between 1996 and 2003, before and one year after the implementation of national guidelines in 2002 which recommended at least quarterly systematic visits in center.
Methods: Descriptive analysis of 175 of the adults followed-up between 1996 and 2003. The data, including spirometry, microbiological tests and antibiotic therapy, have been collected retrospectively from the patient's record for every visit and hospitalization in the CF center from 1996 to 2003.
Results: The average age at the time of diagnosis was 6.9±11.6 year old. 49.7% of the patients had a diagnosis suggested by respiratory problems. 69.1% of patients had chronic colonization with *Pseudomonas aeruginosa*. The annual average number of routine visits for each patient was constant: 4.3±3.1 in 1996, 4.2±3.0 in 2003 (no significant difference). The average number of visits in emergency increased significantly: 0.5±1.1 in 1996, 1.0±1.6 in 2003 ($p<0.01$). The annual frequency of the respiratory tests increased significantly from 2.5±1.8 in 1996 to 3.8±2.5 in 2003 ($p<10^{-4}$) but the microbiological tests were stable between 1996 and 2003 (respectively 3.5±3.0 and 4.1±3.0). The average annual number of antibiotic treatments per patient was 2.1±2.2 in 1996 and 2.5±2.3 in 2003 (no significant difference).
Conclusion: These results show that the practice patterns in the French CF center of Lyon progressed between 1996 and 2003. This study is planned to go on until 2007 to show an improvement in clinical practice as well as the clinical evolution of the patients.

461

Cystic Fibrosis in Adulthood: data from the Italian registry

A. Bossi[1], P. Piccinini[1], R. Padoan[2], Assemblea dei Direttori dei Centri per la Fibrosi Cistica
[1]*Istituto di Statistica Medica e Biometria – Università degli Studi di Milano,* [2]*Centro di Supporto per la Fibrosi Cistica, A.O. Spedali Civili di Brescia*

Aims: In Italy about half of patients with Cystic Fibrosis (CF) are adults. The aim of this study is to describe their clinical features.
Methods: The analysis was carried out on all patients aged 18 years or more recorded in the CF Italian Registry (CFIR) up to the year 2001. The expected number of adult patients (AP) in the near future was estimated with linear models as well as with actuarial techniques. Survival data were fitted with the Kaplan-Meier model.
Results: According to the CFIR summary data, there were 1960 individuals with CF ≥18year-old. Of these, 337 were diagnosed in their adulthood; 1640 were alive in 2001 (prevalence of AP: 43%). Table 1 summarises the demographic data and the reason for the initial sweat test. DNA of 1661 AP was analysed for CFTR mutations: 35% of CF pts diagnosed ≥18yrs presented a mild genotype. Survival at 30 years was 0.90 (95%IC: 0.86-0.94) among patients with mild genotype versus 0.78 (0.74-0.82) among patients with severe genotype. A total of 159 patients were candidate to transplantation: among these 102 were transplanted (83 bi-pulmonary), and 31 died before surgery. 95/102 patients were transplanted after 18 years of age (mean=26 yrs).
Conclusions: In AP, late diagnosis is associated with less pancreatic insufficiency, and higher prevalence of mild CFTR mutations. In the next years adult CF population will account for more than 50% of Italian CF patients.

Table 1

		Age on 31.12.01			Age at death			
Gender	n	mean	max	>40y	n	mean	min	max
M	880	27.4	59.0	4%	163	25.7	18.1	48.4
F	760	28.0	64.7	6%	157	24.9	18.1	47.0

	Age at diagnosis		
Reason for sweat test	≤1y (n=577)	1-17y (n=1046)	≥18y (n=337)
Symptoms	67.1%	91.6%	90.4%
Positive neonatal screening	18.4%	0.9%	-
Meconium ileus	10.7%	2.5%	-
Positive family history	3.9%	5.0%	9.6%
DNA analysis: delF508	54.5%	47.7%	34.3%
Pancreatic insufficiency	93.6	75.3	35.3